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### **ABSTRACT**

This 3-year study evaluated a culturally and linguistically appropriate curriculum for 168 preschool children in a southwest Head Start program. Three yearly student cohorts (1997-98, 1998-99, 1999-2000) have participated in the study evaluating the Language Enrichment Activities Program (LEAP) as the curriculum. During Year 1, the English LEAP curriculum was used; the Spanish version was implemented in Year 2. Preschoolers received the curriculum in the language in which they were most proficient; children with mixed/undeterminable dominance or with limited English proficiency received the Spanish version. For Years 1 and 2, evaluation data were obtained on language growth in English and Spanish. For Year 3 of the study, the Developmental Indicators for the Assessment of Learning-3 (DIAL-3) in Spanish was used to assess students' progress in the following domains: motor, concepts, language, and total scores. Findings from Year 1 indicated that English Dominant students showed a nonstatistically significant increase in English language skills. The Spanish Dominant students evidenced significant growth in their English skills. The mixed dominant group showed significant improvement in English and significant declines in Spanish skills. Year 2 findings indicated that the English Dominant group did not show significant English skill growth. The Spanish Dominant group showed significant improvements in English and Spanish. The Mixed Dominant group had 14 and 12 point increases in English and Spanish, respectively. Year 3 findings indicated that the Spanish Dominant group showed significant growth in motor, concept, and total domains, with no change in language skills. The Limited English Proficient group showed significant growth in motor and total domains only. (KB)



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A Three Year Evaluation Study of a Bilingual Curriculum Program for Limited English Proficient Hispanic Preschoolers in Head Start

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A Poster Presented at Head Start's Fifth National Research Conference June 28 - July 1, 2000





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### Presenters:

Salvador Hector Ochoa, Ph.D. Adam L. Sáenz, M.A.

### Body:

The purpose of this presentation is to discuss the development and evaluation of a culturally and linguistically appropriate curriculum for 168 preschoolers in a Head Start center during its first three years of operation. A description and samples of the curriculum will be available. For the first two years, evaluation data was obtained on language growth in English and Spanish by using the Pre- Idea Proficiency Test (Pre-IPT) and the Preschool Language Survey-3 (PLS-3). For the third year of the study, the Developmental Indicators for the Assessment of Learning – Third Edition (DIAL-3) in Spanish was used to assess students' progress in the following domains: motor, concepts, language, and total scores.

### References:

Mardell-Czudnowski, C. & Goldenberg, D.S. (1998). Developmental Indicator for Assessment of Learning-Revised. Circle Pines, MN: American Guidance Service, Inc.

Williams, C. O., Ballard, W. S., & Tighe, P. L. (1988). The Pre-IDEA Proficiency Test. Brea, CA: Ballard & Tighe.

Zimmerman, I. L., Steiner, V. G., & Pond, R. E. (1992). Preschool Language Scale, Third Edition. San Antonio, TX: The Psychological Corporation.



### **ABSTRACT**

The purpose of this presentation is to discuss the development and evaluation of a culturally and linguistically appropriate curriculum for 168 preschoolers in a Head Start center during its first three years of operation. A description and samples of the curriculum will be available. For the first two years, evaluation data was obtained on language growth in English and Spanish by using the Pre- Idea Proficiency Test (Pre-IPT) and the Preschool Language Survey-3 (PLS-3). For the third year of the study, the Developmental Indicators for the Assessment of Learning – Third Edition (DIAL-3) in Spanish was used to assess students' progress in the following domains: motor, concepts, language, and total scores.

### **METHOD**

### **PARTICIPANTS**

Implementation and evaluation of the Spanish curriculum began in the fall of 1997. Since this time, three yearly student cohorts (1997-98, 1998-99 and 1999-2000) have participated in this study. A total of 168 preschoolers have participated across these three years. All participants were from a large metropolitan city located in the southwest. Participants were classified into one of three groups based on results of language proficiency testing: a) English Dominant, b) Spanish Dominant, or c) Mixed/undeterminable dominance (cohorts #1 & #2 only) or Limited English Proficient (cohort #3 only).

For cohorts # 1 and # 2, students were placed in the English dominant or Spanish dominant group if their scores across both measures consistently indicated that they had higher scores in one language and virtually no skills in the other language. Students were placed in the Mixed Dominance or Undeterminable group if they had nearly equivalent scores in both English and Spanish across both measures or if they scored higher in one language on one test and yet higher in the other language on the other test. For cohort #3, students were classified into one of three language proficiency groups based on their performance on only the Pre-IPT test. Students were placed in the English or Spanish Dominant group if they had a higher score in that particular language. Students were classified into the Limited English Proficient group if they had equal scores in both English and Spanish that indicated that the student was a "non-speaker" or a "limited speaker" in both languages. Table 1 displays the representation of participants in the different types of language groups by cohort.



### **CURRICULUM**

The curriculum used at the Head Start Center was the Language Enrichment Activities Program (LEAP) in Spanish. The LEAP curriculum was developed by a university instructor with expertise in early childhood and bilingual education as well as by a bilingual preschool teacher. This curriculum was based on the English version of the LEAP developed by Dr. Nell Carvell. Table 2 describes critical features of the curriculum. Table 3 provides information as to the content and components of the curriculum.

During the first year of the study, the LEAP curriculum was primarily used in English with all students. The implementation of the Spanish curriculum did not begin until the fall of 1998 (cohort #2). Preschoolers in the Spanish dominant and mixed/undeterminable dominance groups received the Spanish LEAP curriculum version. Head Start students in the English dominant group received the English version of the LEAP curriculum. Cohort #3 (1999-2000) received the curriculum in the same manner as cohort #2 as mentioned above with one exception. The limited English proficient group received the curriculum in Spanish.

### **INSTRUMENTS**

For cohorts #1 and #2, two measures were used to classify preschoolers into one of the three types of dominance groups as well as to assess language growth in both English and Spanish. The measures were the Preschool Language Scale – 3 (PLS-3) (Zimmerman, Steiner & Pond, 1991) and the Pre-Idea Proficiency Test (Pre-IPT) (Williamson, Ballard & Tighe, 1988). For cohort #3, only the Pre-IPT was used to classify preschoolers into one of three types of language groups. The PLS-3 separates language into the auditory and expressive domain. This test provides a standard score in both English and Spanish for preschool children. It has demonstrated adequate reliability and validity. The Pre-IPT is a game-like instrument requiring the subject to respond (orally or physically) to a series of commands from the examiner. This classifies the preschooler into one of three proficiency designations in both English and Spanish: a) non-speaker, b) limited speaker, and c) fluent speaker. For post-testing for cohorts #1 and #2, both instruments were given in English and Spanish to children in the Spanish dominant and Mixed Dominance groups, while students in the English dominant group were given only the English version of the PLS-3 and Pre-IPT.

For cohort # 3, the Pre-IPT was used to classify preschoolers into one of three language groups. The Pre-IPT was used as a pre-test and post-test for the English Dominant group. The Dial-3 was used as a pre-test and post-test measure for the limited English proficient and Spanish Dominant groups. The Dial-3 consists of five screening areas: motor, concepts, language, self-help development, and social development. The first three areas, the only ones used in this study, require that children demonstrate fine and gross motor skills, language skills, and awareness of cognitive concepts. These three subtests combine to yield a total scale score.



### **PROCEDURES**

All pre-test measures were administered to all participants prior to the implementation (August and early September) of the curriculum. All post-test measures were administered toward the end of the school year (April and early May). All children were tested by graduate school psychology and special education students. All examiners received training to administer all measures and were required to pass an administration proficiency checkout. Table 4 displays what pre- and post-test measures were administered to each cohort.

### **RESULTS**

### Cohort #1 (1997-98)\*

English Dominant Group. The pupils in the English dominant group, collectively, evidenced growth in their English language skills as indicated by a change in their PLS-3 English means scores from 85.52 to 88.00. This increase, however, was not statistically significant, t = .888, df = 22, p = .384. When examining the results on an individual basis by comparing Pre-IPT scores from pre-to-post testing, 10 (83%) out of 12 students who could have improved proficiency levels did actually evidence growth.

Spanish Dominant Group. The students in this group, collectively, evidenced growth in their English language skills as indicated by a 13-point increase in their PLS-3 English mean scores from 50.00 to 62.90. This increase is statistically significant, t = 5.472, df=20, p = .042. When examining the results on an individual basis by comparing Pre-IPT scores from pre-to-post testing, 12 out of 15 (80%) who could have improved a proficiency level did actually evidenced growth in Spanish.

Mixed Dominant Group. The students in this group, collectively, evidenced statistically significant growth with respect to their English skills, t=2.311, df=37, p=0.027 and a statistically significant decrease in their Spanish skills, t=3.304, df=37, p=0.002. On the Pre-IPT, 20 out of 27 (74%) students who could have improved a proficiency level in English did so. Only 7 out of 28 (25%) who could have improved a proficiency level did evidence growth in Spanish.

(\*These exact findings were reported at the Head Start's Fourth National Research Conference.)



### Cohort #2 (1998-99)

English Dominant Group. The pupils in this group did not evidence significant growth in their English language skills as indicated by their PLS-3 mean scores, t = -.464, df = 23, p = .647. When examining the results on an individual basis by comparing Pre-IPT scores from pre-to-post testing, 6 (60%) out of 10 students who could have improved proficiency levels did actually evidence growth.

Spanish Dominant Group. Students in this group evidenced a 12.57 point increase in their PLS-3 English scores from pre- (x = 54.07) to post-testing (x = 66.64). The students in this group, collectively, evidenced statistically significant growth in English language skills, t = 4.173, df = 13, p = .001. The effect size for growth in English was 1.13. In Spanish, students in this group has a 6.54 point increase in their PLS-3 Spanish scores from pretesting (x = 80.38) to post-testing (x = 86.92). The students in this group, collectively, evidenced statistically significant growth in Spanish, t = 2.183, df = 12, p = .05. The effect size for growth in Spanish was .55. When examining the results on an individual basis by comparing Pre-IPT scores from pre-to-post testing, 9 (69%) out of 13 students and 7 out of 11 (64%) pupils who could have improved proficiency levels did actually evidence growth in English and Spanish, respectively,

<u>Mixed Dominant Group.</u> Preschoolers in this group had a 14 and 12 point increase in their PLS-3 English and Spanish scores, respectively. In English, the pretesting mean was 60.33, while the posttesting mean was 74.33. In Spanish, the pretesting mean was 59.25; while the posttesting mean was 72.00. The effect size for growth in English was 1.20 and 1.24 for Spanish.

### Cohort #3 (1999-2000)

The DIAL-3 in Spanish was used to ascertain growth in the following domains: language, motor, concept, and total score. Table 5 provides results for the Spanish Dominant Group. Table 6 displays the results for the LEP group.

### DISCUSSION

### Cohort #1 (1997-98)\*

English Dominant Children. Preschoolers evidenced some growth, although not statistically significant, in English. This growth might have been greater if the students in this group received English only instruction. Given some difficulties with the start up of this project and language ability in Spanish of teaching staff at the center, students in this group received the curriculum primarily via English instruction. They, however, were grouped with LEP preschoolers and thus received some instruction in Spanish.



Spanish Dominant Group. The results of the PLS-3 testing are problematic because it indicates that the LEP children evidenced growth in English (their second language) and a decrease in Spanish (their first language). This language loss in a student's' first language is not a good sign because research has clearly illustrated that the best method for LEP children to improve English skills is to develop their first language (Cummins, 1984, Collier, 1989). These results, however, are inconsistent when using the Pre-IPT.

<u>Mixed Dominant Group</u>. The results were consistent across measures for both English and Spanish. Students in this group made significant growth in English and had a significant decrease in Spanish. As mentioned with the Spanish dominant group, improvement in English and a decrease or no gain in Spanish is not a positive factor for these students. Students with mixed dominance need to develop their first language as well as their second language.

(\*This is an exact portion of the discussion that was reported at the Head Start's Fourth National Research Conference.)

### Cohort #2 (1998-99)

The major difference between the first and second cohorts was that students were grouped by their language abilities for instructional purposes. Thus, to the degree possible, English dominant students were grouped together and received instruction only in English. Spanish Dominant and Mixed Dominance children were grouped together and received instruction in English and Spanish. A curriculum fidelity coordinator was utilized to assist teachers at the Head Start Center with the delivery of instruction. The children in the Spanish dominant group evidenced significant gains in both English and Spanish. The effect size of 1.13 for English growth and .55 for Spanish growth are considered to be good and significant. These results are viewed positively because children in this group evidenced growth in their first language. Cummins (1984) and Thomas and Collier (1997) clearly state that student must develop their first language if they are to develop adequate English to compete in academic settings.

The children in the Mixed Dominance group evidenced statistically significant improvement in English. The effect sizes for growth in English was 1.20 and 1.25 in Spanish. Effect sizes of this magnitude are interpreted as large and significant. Thus, based for the same reason given for Spanish dominant children above, these results are viewed as quite positive.

### Cohort #3 (1999-2000)

For this cohort, the DIAL-3 was used to assess growth for the Spanish Dominant and LEP group. This measure was used for the first time because it assesses three critical domains (language, motor and concepts). Previously, the evaluation of the curriculum focused only on language growth. Examining these two additional domains was deemed to be important in order to obtain more information on the progress of the participants.



Spanish Dominant. This group evidenced statistically significant growth in the motor, concept and total domains as measured by both t-tests and exact tests. The effect size for these three domains ranged from .1382 to .1906. This group's performance in the language domain remained relatively the same from pre- to post-testing. This could be due to the fact that there was no curriculum fidelity coordinator present during this year who could assist with or model instructional delivery.

<u>LEP Group.</u> This group evidenced statistically significant growth in the motor and total domains as measured by both t-tests and exact tests. The effect sizes for these two domains were .2305 for the motor domain and .2468 for the total score. This group did not evidence statistically significant growth in the language and concept domains. This lack of growth in the language domain is an issue of concern given the previously cited research.



### Table 1

	Cohort #1	Cohort #2	Cohort #3
	1997-98	1998-99	1999-2000
English Dominant	23	34	12
Spanish Dominant	21	14	17
Mixed/Undeterminable Dominance	38	9	1
Limited English Proficient			13



### Table 2. Language Enrichment Activities Program

### **LEAPS**

### **Developmentally Appropriate**

Begin with what children know (background knowledge)

Provide children with opportunities to interact with new materials and concepts

### Facilitate children's discovery of new concepts

Allow children the opportunity to work in a variety of settings-individual, small group, and large group

Emphasize the development of children's creativity through free expression

### **Linguistically Appropriate**

New concepts and vocabulary are introduced in the language in which the children are most proficient

English is introduced in a non-threatening manner

Children are exposed to English through "caretaker talk"

Children are exposed to English through finger-plays, songs, chants, and rhymes

English vocabulary is introduced for concepts and vocabulary already acquired in the children's first language (Spanish)

### **Culturally Appropriate**

Materials depict the home culture of the children Parents and other family members are encouraged to take part in the Center's activities



### **Components of LEAPS**

### Thematic Lessons

High interest themes Help children make connections between what they are learning at the center and their home lives

### Four days of Lessons

Each group of lessons is designed for a four-day cycle Each lesson builds upon the previous lessons, therefore it is important to use the lessons in the order in which they are presented

The fifth day is available for repetition of lessons

Each set of lessons begins with a list of the objectives to be emphasized that week

### Modes of Instruction

Whole group, small group, and individual activities are included Teacher-guided and child-guided lessons are included



Table 3. Components of Leap

¥	Theme	Language	Language	Language	Language	ESL
##		W/ Ideas	W/Words	W/ Letters	W/Motor Skills	
-	My Family	Shapes	Family Members		Pouring	Mother, Father
7	Му Ноте	Big, Little, Med. Sized Rooms in a house Furnishings	Rooms in a house Furnishings		Sifting, Squeezing	Sister, Brother, Baby
င	My School	Blue, Red	Classroom Objectives School Verbs		Pouring	Teacher, Flag, Clock, Chalkboard, What is your name?
4	My body	Auditory Discrimination	Face, arms legs, hands, feet, body		Scooping	Eyes, Ears, Nose, Mouth, Arm, Leg, Hand, Foot
5	Health	Same/Different	Medical & Dental care	Σ	Squeezing	What hurts?
9	Home & Playground Safety	Yellow, Green	Cooking & playground safety	Ь	Scrubbing	What's your name? Are you a boy or a girl
7	Community/ Community helpers	One more, count to 5	Community places Occupations	S	Squeezing tongs	Community Helpers
80	Community/ Community helpers	Prepositions	Firefighters, 911, Mail Carriers	Ţ	Squeezing tongs	Community Helpers
တ	Fruits & Vegetables	Classifying	Vegetables, fruits	7	Cutting	Circle, square, triangle
9	Nutrition	Sedation	Meats & other food	O	Pincer grasp	Apple, Banana, Carrot, Corn TPR commands
<del>-</del>	Seasons & Weather	Sequencing	Climate, seasons, winter clothing	Review-m, p, s, t, 1, d	Tracing	TPR commands
12	Seasonal Clothing	Patterns	Clothing	Υ Σ	Copying	Pants, Shirts, Dress, Shoes
13	Transportation	Sequencing & Stories	Land transportation	В, Е	Folding, hole, punching, cutting	Boat, Bus, Car
4	Transportation	Parts to whole	Air, water transport.	— ш	Copying	Bicycle, truck, Airplane
15	Animals	Past tense	Mammals	۷, 0	Pincer grasp	Dog, Cat, Horse, Cow
9	Animals	Plurals	Mammals	ص ق' ر	Start/Stop lines	Bird, Fish, Duck
14	Plants & Insects	Temporal relationships	Plants, insects	C	Writing Letters	Flower, Tree, Butterfly
9	Air & Sea Animals	More than, less than	Birds, sea animals	מצ	Writing Letters	Count to 5
9 2	Run, Jump, Play	٠.١	Actions		Writing Letters	Big, Small
3	water run	What If?	Actions, beach	Keview	Writing Letters	Prepositions



### Table 4

	Cohort #1	Cohort #2	Cohort #3
	1997-98	1998-99	1999-2000
Pre Testing			
All Children		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
PLS-3 English	×	X	
PLS-3 Spanish	X	X	
Pre-IPT English	X	X	×
Pre-IPT Spanish	X	X	X
Spanish Dominant and LEP			X
Children Only DIAL-3			
Post Testing By Language Group			
English Dominant			
PLS-3 English	X	X	
Pre-IPT English	X	X	×
Spanish Dominant			
PLS-3 English	X	X	
Pre-IPT English	X	X	
PLS-3 Spanish	X	X	
Pre-IPT Spanish	X	X	
DIAL-3 Spanish			×
Mixed/Undeterminable Dominance			
PLS-3 English	X	X	
Pre-IPT English	X	X	
PLS-3 Spanish	X	X	
Pre-IPT Spanish	X	X	
DIAL-3 Spanish			×



### Table 5 COHORT #3

# SPANISH DOMINANT GROUP

## PRE-POST COMPARISON Paired Samples Statistics

				'	P	Paired Differences	rences			
	Mean	Z	Standard Deviatio	Standard Standard Deviatio Error Mean	Mean	Standard Deviatio	Standard Standard Deviatio Error Mean	t	df	Significance (2-tailed)
Pre-Test DIAL Motor	95.71	17	8.59	.2.08						
r all 1 Post-Test DIAL Motor	104.91	17	10.03	2.43	9.24	11.75	2.85	3.241	16	. 0.005
Pre-Test DIAL Concept	81.94	17	8.21	1.99						
Fam 2 Post-Test DIAL Concept	87.06	17	12.73	3.09	5.12	86.8	2.18	2.35	16	0.1032
Doi: 2 Pre-Test DIAL Language	82.82	17	10.82	2.62						
Fam Post-Test DIAL Language	82.76	17	11.88	2.88	-0.058	10.23	2.48	-0.024	16	0.981
Doi: 1 Pre-Test DIAL Total	82.82	17	8.47	2.05						
Fall * Post-Test DIAL Total	88.06	17	13.14	3.19	8.06	10.89	2.64	3.05	16	800.0

<sup>\*</sup>Spanish dominant students, collectively, evidenced statistically significant growth in the motor, concept and total domains when ttests and an exact test (Permutation Test for 2 Related Samples) were used.

<sup>\*</sup>Effect sizes for these 3 domains were positive.

<sup>\*</sup>Spanish dominant students, collectively, did not evidence significant growth in language dominance in Spanish!

### Table 6 COHORT #3

# LIMITED ENGLISH PROFICIENT GROUP

## PRE-POST COMPARISON Paired Samples Statistics

					Д	Paired Differences	rences			
	Mean	Z	Standard Deviatio	Standard Standard Deviatio Error Mean	Mean	Standard Deviatio	Standard Standard Deviatio Error Mean	₩	df	Significance (2-tailed)
Doi: 1 Pre-Test DIAL Motor	92.85	13	12.77	3.54	. •					
Post-Test DIAL Motor	104.69	13	17.07	4.73	11.85	14.25	3.95	2.997	12	0.04
Dair o Pre-Test DIAL Concept	74.38	13	8.43	2.34						
Post-Test DIAL Concept	78.23	13	10.75	2.98	3.85	6.6	2.75	1.401	12	0.187
Doir 2 Pre-Test DIAL Language	74.77	13	& &	2.44						
Post-Test DIAL Language	78.54	13	9.81	2.72	3.77	7.77	2.15	1.749	12	0.106
Doir A Pre-Test DIAL Total	76.31	13	8.76	2.43						
Post-Test DIAL Total	84	13	11.09	3.08	7.69	8.64	2.4	3.208	12	0.008

\*Please note that the sample size of the paired comparisons is too small to adequately ascertain if significant growth occurred in English and Spanish.

\*Effect sizes greater than 1.0 are considered to be big.



# Table 5 Continued PERMUTATION TESTS FOR TWO RELATED SAMPLES

### (EXACT TEST)

Two-Sided P Value Estimate	0.0053	0.0363	_	0.0107	
Pre-Test VS. Post-Test	Motor Scale	Concept Scale	Language Scale	Total Scale	



# Table 6 Continued PERMUTATION TESTS FOR TWO RELATED SAMPLES

## (EXACT TEST)

Tre-Test Mot Conc Langu		re-Test VS. Post-Test	Motor Scale	Concept Scale	Language Scale	Total Scale
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Two-Sided P Value Estimate	0.0149	0.2011	0.1161	0.0078
IW				

Sizes	.2305	.1078	.1346	.2468
Effect S	Motor Scale	Concept Scale	Language Scale	Total Score





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